PCT

RAW SEQUENCE LISTING

DATE: 07/27/2001

PATENT APPLICATION:

US/09/889,283

TIME: 19:26:07

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\07272001\I889283.raw

```
ENTERED
      4 <110> APPLICANT: Ruelle, Jean-Louis
              Thonnard, Joelle
      7 <120> TITLE OF INVENTION: Novel Compounds
     10 <130> FILE REFERENCE: BM45348
C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/889,283
C--> 12 <141> CURRENT FILING DATE: 2001-07-13
     12 <150> PRIOR APPLICATION NUMBER: PCT/EP00/00135
     13 <151> PRIOR FILING DATE: 2000-01-10
     15 <160> NUMBER OF SEQ ID NOS: 16
     17 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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     20 <211> LENGTH: 804
     21 <212> TYPE: DNA
     22 <213> ORGANISM: Neisseria meningitidis
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                                                                                60
     26 ggtacggtcg ataaagatgc tcagattacc caagattgga gtgtggagaa gctctatgcc
                                                                               120
     27 gaageecagg acqaattgaa cagcagcaat tatacgcggg ctgtcaagtt atacgaaatc
                                                                               180
     28 ttggaatcgc gettecccac cageegecat geeeggeaat eecaactgga tacegeatae
                                                                               240
     29 gcctattata aagacgatga aaaagacaag gctctggcgg caatcgaacg cttccgccgc
                                                                               300
     30 ctccatccgc agcatccgaa tatggattac gcgctgtatc tgcgcggctt ggtgctgttc
                                                                               360
     31 aacgaagacc agtcettett gaacaaactg geetegeaag actggteega eegegaeeeg
                                                                               420
     32 aaagccaacc gcgaagtaac ccaggcgttt gcggaactcg tccaacgctt ccccaacagc
                                                                               480
     33 aaatacgccg ccgatgcgac cgcacgcatg gtcaaactgg tcgatgcact gggcggcaat
                                                                               540
     34 gaaatgtegg tggegeta etacatgaaa egeggegeat atategeege egeeaacege
                                                                               600
     35 gcccaaaaaa ttatcggcag ctaccaaaat acacgctatg tcgaagaatc gctcgccatc
                                                                               660
     36 ttggaacttg cctaccaaaa actcggcaaa ccacagettg ccgccgatac gcgccgcgtg
                                                                               720
     37 ttqqaaacca acttcccqaa aaqcccqttt ttqacqcacq cttqqcaqcc cqacqatatq
                                                                               780
     38 ccttggtggc gttactggca ttaa
                                                                               804
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     41 <211> LENGTH: 267
     42 <212> TYPE: PRT
     43 <213> ORGANISM: Neisseria meningitidis
     45 <400> SEQUENCE: 2
    46 Met Lys Lys Ile Leu Leu Thr Val Ser Leu Gly Leu Ala Leu Ser Ala
     47
                         5
                                            10
    48 Cys Ala Thr Gln Gly Thr Val Asp Lys Asp Ala Gln Ile Thr Gln Asp
                    20
                                        25
    49
    50 Trp Ser Val Glu Lys Leu Tyr Ala Glu Ala Gln Asp Glu Leu Asn Ser
    52 Ser Asn Tyr Thr Arg Ala Val Lys Leu Tyr Glu Ile Leu Glu Ser Arg
    53
                                55
                                                    60
    54 Phe Pro Thr Ser Arg His Ala Arg Gln Ser Gln Leu Asp Thr Ala Tyr
                                                75
    56 Ala Tyr Tyr Lys Asp Asp Glu Lys Asp Lys Ala Leu Ala Ala Ile Glu
                                            90
```

58 Arg Phe Arg Arg Leu His Pro Gln His Pro Asn Met Asp Tyr Ala Leu

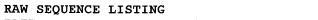
RAW SEQUENCE LISTINGPATENT APPLICATION: US/09/889,283

DATE: 07/27/2001

TIME: 19:26:07

Input Set : A:\seqlist.txt

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                                   105
               100
                                                        110
60 Tyr Leu Arg Gly Leu Val Leu Phe Asn Glu Asp Gln Ser Phe Leu Asn
           115
                               120
62 Lys Leu Ala Ser Gln Asp Trp Ser Asp Arg Asp Pro Lys Ala Asn Arg
63
                           135
                                                140
64 Glu Val Thr Gln Ala Phe Ala Glu Leu Val Gln Arg Phe Pro Asn Ser
65 145
                       150
                                            155
66 Lys Tyr Ala Ala Asp Ala Thr Ala Arg Met Val Lys Leu Val Asp Ala
                                        170
                   165
68 Leu Gly Gly Asn Glu Met Ser Val Ala Arg Tyr Tyr Met Lys Arg Gly
               180
                                   185
                                                        190
70 Ala Tyr Ile Ala Ala Ala Asn Arg Ala Gln Lys Ile Ile Gly Ser Tyr
           195
                               200
                                                    205
72 Gln Asn Thr Arg Tyr Val Glu Glu Ser Leu Ala Ile Leu Glu Leu Ala
73
                           215
74 Tyr Gln Lys Leu Gly Lys Pro Gln Leu Ala Ala Asp Thr Arg Arg Val
75 225
                       230
                                            235
                                                                240
76 Leu Glu Thr Asn Phe Pro Lys Ser Pro Phe Leu Thr His Ala Trp Gln
77
                   245
                                        250
78 Pro Asp Asp Met Pro Trp Trp Arg Tyr Trp His
               260
                                   265
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83 <212> TYPE: DNA
84 <213> ORGANISM: Neisseria meningitidis
86 <400> SEQUENCE: 3
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88 tgcaccatga ttccccaata cgagcagccc aaagtcgaag ttgccgaaac gtttaaaaac
                                                                           120
89 gataccgccg acagcggcat ccgtgcggtc gatttaggtt ggcatgacta ttttgccgac
                                                                           180
90 ccqcqcctqc aaaaqctqat cqacatcqca ctcqaqcqca ataccaqttt qcqtaccqcc
                                                                           240
91 gtattgaaca gcgaaatcta ccgcaaacaa tacatgattg agcgcaacaa cctcctgccc
                                                                           300
92 acgettgeeg ceaatgegaa eggetegege caaggeaget tgageggegg caatgteage
                                                                           360
93 agcagetaca atgtcggact gggtgcggca tettacgaac tegacetgtt eggacgegte
                                                                           420
94 cgcagcagca gcgaagcagc actgcaaggc tattttgcaa gtgtcgccaa ccgcgatgcg
                                                                           480
95 gcacatttga qcctgattgc caccgttgcc aaagcctatt tcaacgaacg ttatgccgaa
                                                                           540
96 gaagcgatgt ctttggcgca gcgtgttttg aaaacgcgcg aggaaaccta caagctgtcc
                                                                           600
97 gaattacgtt acaaggcagg cgtgatttcc gccgtcgccc tacgtcagca ggaagccctg
                                                                           660
98 ategaatetg ccaaageega ttatgeecat geegegegea geegegaaca ggegegeaat
                                                                           720
99 gccttggcaa ccttgattaa ccaaccgata cccgaagacc tgcctgccgg tttgccgctg
                                                                           780
100 gacaagcagt tttttgttga aaaactgccg gccggtttga gttccgaagt attgctcgac
                                                                            840
101 cqtcccqata tccqtqctqc cqaacacqcq ctcaaacaqq caaacqccaa tatcqqtqcq
                                                                            900
102 gcacgcgccg cetttttccc atccatccgc ctgaccggaa ccgtcggtac gggttctgcc
                                                                           960
103 gaattgggtg ggttgttcaa aagcggcacg ggcgtttggt cgttcgcgcc gtctattacc
                                                                           1020
104 ctgccgattt ttacctgggg tacgaacaaa gccaaccttg atgtagccaa gctgcgccaa
                                                                           1080
105 caggcacaaa tcgttgccta tgaagccgcc gtccaatccg catttcaaga cgtggcaaac
                                                                           1140
106 gcattggcgg cgcgcgagca gctggataaa gcctatgacg ctttaagcaa acaaagccgc
                                                                          1200
107 gcctctaaag aggcgttgcg cttggtcggc ctgcgttaca agcacggcgt atccggcgcg
                                                                          1260
108 ctcgacttgc tcgatgcgga acgcagcagc tatgcggcgg agggtgcggc tttgtcggca
                                                                          1320
109 caactgaccc gcgccgaaaa ccttgccgat ttgtacaagg cactcggcgg cggattgaaa
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```



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DATE: 07/27/2001

Input Set : A:\seqlist.txt

	O cgggataccc aaaccgacaa ataa													140	4			
	<210> SEQ ID NO: 4																	
	S <211> LENGTH: 467 S <212> TYPE: PRT																	
										٠.								
						Neisseria meningitidis												
			EQUE			4 Leu Lys Thr Thr Leu Thr Ser Val Ala Ala Ala Phe												
119	1				5					10					15			
120 121	Ala	Leu	Ser	Ala 20	Cys	Thr	Met	Ile	Pro 25		Tyr		Gln	Pro 30	Lys	Val		
122 123	Glu	Val	Ala 35	Glu	Thr	Phe	Lys	Asn 40	Asp	Thr	Ala	Asp	Ser 45	Gly	Ile	Arg		
124	Ala			Leu	Gly	Trp		Asp	Tyr	Phe	Ala			Arg	Leu	Gln		
125	T	50	~1 -		-1 -		55	a 1			m)	60	_	_	_,	- 1		
127	65					70		Glu			75			_		80		
128 129		Leu	Asn	Ser	Glu 85	Ile	Tyr	Arg	Lys	Gln 90	Tyr	Met	Ile	Glu	Arg 95	Asn		
		Leu	Leu	Pro 100	Thr	Leu	Ala	Ala	Asn 105	Ala	Asn	Gly	Ser		Gln	Gly		
	Cor	Lou	Sor		C137	λcn	W = 1	Ser		Con	(II) T T T T	λαη	Wa I	110	Т ОП	C1**		
133			115					120					125					
134 135	Ala	Ala 130	Ser	Tyr	Glu	Leu	Asp 135	Leu	Phe	Gly	Arg	Val 140	Arg	Ser	Ser	Ser		
	Glu		Ala	Leu	G1n	Glv		Phe	Ala	Ser	Va l		Asn	Ara	Asp	Ala		
	145					150	-1-				155			9		160		
		His	Leu	Ser	Leu	Ile	Ala	Thr	Val	Ala	Lys	Ala	Tyr	Phe	Asn			
139					165					170					175			
	Arg	Tyr	Ala		Glu	Ala	Met	Ser		Ala	Gln	Arg	Val		Lys	Thr		
141	_			180	_	_	_	_	185	_	_	_	_	190				
142	Arg	GIU	G1u 195	Thr	Tyr	Lys	Leu	Ser 200	Glu	Leu	Arg	Tyr	Lys 205	Ala	GIY	Val		
	Tle	Ser		Val	Δla	T.e.11	Δτα	Gln	Gln	G1n	Δla	Τ.Δ11		Glu	Sor	Δla		
145	110	210	mu	, ar	AIu	neu.	215	0111	0111	Olu	AIG	220	116	GIU	Der	AIG		
146	Lys	Ala	Asp	Tyr	Ala	His		Ala	Arq	Ser	Arq	-	Gln	Ala	Arq	Asn		
147			-	-		230					235				_	240		
148	Ala	Leu	Ala	Thr	Leu	Ile	Asn	Gln	${\tt Pro}$	Ile	${\tt Pro}$	Glu	Asp	Leu	Pro	Ala		
149					245					250					255			
150	Gly	Leu	Pro	Leu	Asp	Lys	Gln	Phe	Phe	Val	Glu	Lys	Leu	${\tt Pro}$	Ala	Gly		
151				260					265					270				
	Leu	Ser		Glu	Val	Leu	Leu	Asp	Arg	Pro	Asp	Ile	_	Ala	Ala	Glu		
153			275		_	_		280					285					
	His		Leu	ГÀЗ	Gln	Ala		Ala	Asn	Ile	Gly		Ala	Arg	Ala	Ala		
155	nha	290	Dro	Co	т1а	71 m~	295	mh	C1	m b	17- 1	300	m k	Q1	C	71-		
		Fue	PLO	ser	тте		ьeu	Thr	стА	ınr		GTÄ	ınr	стλ	ser			
157		Len	C1 17	C117	Leu	310	Luc	Ser	Gl ₂₇	Th.~	315	Wal	Trn	G.~~	Dha	320		
159	Giu	ьеи	ату	атй	325	tiiG	nys	ser	ату	330	ату	val	ттЬ	ser	335	чта		
	Pro	Ser	Ile	Thr		Pro	Ile	Phe	Thr		Gly	Thr	Asn	Lys		Asn		

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Input Set : A:\seqlist.txt

16	L		340					345					350			
16	Leu A	Asp Val	l Ala	Lys	Leu	Arg	Gln	Gln	Ala	Gln	Ile	Val	Ala	Tyr	Glu	
16	3	35	5				360					365				
16	1 Ala A	Ala Va	l Gln	Ser	Ala	Phe	Gln	Asp	Val	Ala	Asn	Ala	Leu	Ala	Ala	
16	5 3	370				375					380					
16	5 Arg (Glu Gli	n Leu	Asp	Lys	Ala	Tyr	Asp	Ala	Leu	Ser	Lys	Gln	Ser	Arg	
16	7 385				390					395					400	
16	3 Ala 9	Ser Ly	s Glu	Ala	Leu	Arg	Leu	Val	Gly	Leu	Arg	Tyr	Lys	His	Gly	
16	€			405					410					415		
17) Val S	Ser Gl	y Ala	Leu	Asp	Leu	Leu	Asp	Ala	Glu	Arg	Ser	Ser	Tyr	Ala	
17.			420					425					430			
	2 Ala (Glu Gl	y Ala	Ala	Leu	Ser		Gln	Leu	Thr	Arg		Glu	Asn	Leu	
17		43	-				440					445			•	
17	Ala A	_	u Tyr	Lys	Ala		Gly	Gly	Gly	Leu	_	Arg	Asp	Thr	Gln	
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	Thr A	sp Ly	S													
	7 465															
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	82 <213> ORGANISM: Neisseria meningitidis															
	84 <400> SEQUENCE: 5															
	5 atgaaaaac ttctaatgat aaccetcace ggtatgettg cagettgtge aacaggtgte 60															
	6 aatgteggee ggttgatggt tgaaatgeeg eagggagaae gttetgtegt tgtgcaggtt 120															
	7 cccgcgacaa ataacccgct ttccgatacg gtagctgtcg gaatgattaa aacatccggt 180															
	38 tegeettegg cateaaatat gattgaaatg eteggegegg acaatateaa egteggegtg 240 39 gtqqqaaqea geeaaatget taataaqqeg acegeaettt atteettaaa ecatgeaaag 300															
															360	
															420	
	3 <210>	_			, o			- uu	,		400					120
	<211>															
	<212>															
	5 <213>				sser	ia me	enino	ritio	lis							
	3 <400>							,								
	Met I				Met	Ile	Thr	Leu	Thr	Gly	Met	Leu	Ala	Ala	Cys	
20				5					10	-				15	-	
20	l Ala 1	hr Gl	y Val	Asn	Val	Gly	Arg	Leu	Met	Val	Glu	Met	Pro	Gln	Gly	
20	2		20					25					30			
20	Glu A	rg Se	r Val	Val	Val	Gln	Val	Pro	Ala	Thr	Asn	Asn	Pro	Leu	Ser	
20		35					40					45	•			
20	Asp 1	hr Val	l Ala	Val	Gly	Met	Ile	Lys	Thr	Ser	Gly	Ser	Pro	Ser	Ala	
20		0				55					60					
20	Ser A	sn Me	t Ile	Glu	Met	Leu	Gly	Ala	Asp	Asn	Ile	Asn	Val	Gly	Val	
	65				70		-			75					80	
201	Val (Sly Sea	r Ser	Gln	Met	Leu	Asn	Lys	Ala	Thr	Ala	Leu	Tyr	Ser	Leu	
210)			85					90					95		
21																
21.	, . Asn F	is Ala	_				Asn			Ser	Val	Tyr	Met		Gly	
212	Asn F		100	Lys	Val	Gly		105	Val			_	110	Met	_	
212	. Asn H		100	Lys	Val	Gly		105	Val			_	110	Met	_	

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/889,283

DATE: 07/27/2001 TIME: 19:26:07

Input Set : A:\seqlist.txt

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214
            115
                                 120
                                                     125
215 Asn Ile Lys Leu His Tyr Phe Phe Asn Gln Lys
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219 <211> LENGTH: 516
220 <212> TYPE: DNA
221 <213> ORGANISM: Neisseria meningitidis
223 <400> SEQUENCE: 7
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225 geetgegeaa eeaaaageaa egteaaagee gaeggaaega eegaeaatee ggtttteeeg
                                                                            120
226 aaaccctatt ccgtaacgct cgacaacaat cgcggtacat tcccgaccta tgacgaattg
                                                                            180
227 gacttgatgc gtcccggtct gaccaaagac gacatctaca aaatcctggg tcgtccgcat
                                                                            240
228 tacgacgaag gtatgtacgg cgtgcgcgaa tgggattatc tgttccactt ccacaccccg
                                                                            300
229 gqcqtagqca tcqaccctqa aaacacttcc qqcqtaqaaq qcattaccac ctqtcaatac
                                                                            360
230 aaaattattt tegataaaga caaatttgee egeagettet aetggaacce egtetteeeg
                                                                            420
231 aaagatgeeg cetgteegee geeegeacee aaageegage egeaagteat cateegegaa
                                                                            480
232 atcgtgcccg ccaaacccaa acgcatccgc caataa
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235 <211> LENGTH: 171
236 <212> TYPE: PRT
237 <213> ORGANISM: Neisseria meningitidis
239 <400> SEQUENCE: 8
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242 Gly Val Leu Ser Ala Cys Ala Thr Lys Ser Asn Val Lys Ala Asp Gly
                20
                                     25
244 Thr Thr Asp Asn Pro Val Phe Pro Lys Pro Tyr Ser Val Thr Leu Asp
246 Asn Asn Arg Gly Thr Phe Pro Thr Tyr Asp Glu Leu Asp Leu Met Arg
247
248 Pro Gly Leu Thr Lys Asp Asp Ile Tyr Lys Ile Leu Gly Arg Pro His
                        70
                                             75
250 Tyr Asp Glu Gly Met Tyr Gly Val Arg Glu Trp Asp Tyr Leu Phe His
                                         90
252 Phe His Thr Pro Gly Val Gly Ile Asp Pro Glu Asn Thr Ser Gly Val
                100
                                     105
254 Glu Gly Ile Thr Thr Cys Gln Tyr Lys Ile Ile Phe Asp Lys Asp Lys
            115
                                120
                                                     125
256 Phe Ala Arg Ser Phe Tyr Trp Asn Pro Val Phe Pro Lys Asp Ala Ala
                            135
258 Cys Pro Pro Pro Ala Pro Lys Ala Glu Pro Gln Val Ile Ile Arg Glu
259 145
                        150
                                             155
260 Ile Val Pro Ala Lys Pro Lys Arg Ile Arg Gln
261
                    165
                                         170
263 <210> SEQ ID NO: 9
264 <211> LENGTH: 816
265 <212> TYPE: DNA
266 <213> ORGANISM: Neisseria meningitidis
268 <400> SEQUENCE: 9
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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/889,283

DATE: 07/27/2001

TIME: 19:26:08

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\07272001\1889283.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date